
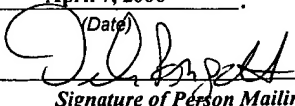


21W 11P 2137

TRANSMITTAL OF APPEAL BRIEF (Small Entity)				Docket No. 008A.0001.U1(US)	
In Re Application Of: Ian C. Williams					
Application No. 09/930,612	Filing Date 08/15/2001	Examiner Popham, Jeffrey D.	Customer No. 29683	Group Art Unit 2137	Confirmation No. 1604
Invention: Apparatus, System and Method for Enhancing Data Security					
<u>COMMISSIONER FOR PATENTS:</u> Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27 The fee for filing this Appeal Brief is: \$250.00 <input checked="" type="checkbox"/> A check in the amount of the fee is enclosed. <input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. <u>50-1924</u> I have enclosed a duplicate copy of this sheet. <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
 _____ Signature			Dated: <u>4/7/06</u>		
Robert J. Mauri (Reg. No. 41,180) Harrington & Smith, LLP 4 Research Drive Shelton, CT 06484-6212 Customer No. 29683			<div style="border: 1px solid black; padding: 5px;">I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>April 7, 2006</u> (Date)  _____ Signature of Person Mailing Correspondence Debra Pongetti _____ Typed or Printed Name of Person Mailing Correspondence</div>		
CC:					



IN THE U.S. PATENT AND TRADEMARK OFFICE

Appl. No. : 09/930,612
Applicant : Ian C. Williams
Filed : August 15, 2001
TC/AU : 2137
Examiner : Jeffrey D. Popham

Docket No. : 008A.0001.U1(US)
Customer No. : 29683

Title : Apparatus, System and Method for Enhancing Data Security

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Alexandria, VA 22313-1450

APPELLANT'S APPEAL BRIEF

Sir:

Commensurate with the Notice of Appeal filed on February 10, 2006, Applicant/Appellant hereby submits this Appeal Brief to the Board of Patent Appeals and Interferences (hereinafter, the Board) under 37 C.F.R. §41.31, and submits a draft for the \$250 appeal brief fee set forth in 37 C.F.R. §41.20(b)(2). This Appeal Brief is filed within two months from the filing date of the above-cited Notice of Appeal and the undersigned representative believes that no late fee is due. However, should the undersigned attorney be mistaken, please consider this a petition for an extension of time under 37 C.F.R. §1.136(a) or (b) that may be required to avoid dismissal of this appeal, and debit Deposit Account No. 50-1924 as appropriate.

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(1) REAL PARTY IN INTEREST

The real party in interest (RPI) is Smart Media Limited, as evidenced by an Assignment recorded at reel 012677 and frame 0130.

(2) RELATED APPEALS AND INTERFERENCES

There are no other pending appeals or interferences of which the undersigned representative and assignee/RPI is aware that will directly affect, be directly affected by or have a bearing on the Board's decision in this appeal.

(3) STATUS OF CLAIMS

Claims 1, 102-119, 125-161, 175-178, and 180-186 stand finally rejected and are pending in this appeal. Claims 2-101, 120-124, 162-174 and 179 are canceled. Claims 1, 102-119, 125-161, 175-178, and 180-186 are reproduced, along with indications of canceled claims, in an Appendix accompanying this Brief as the claims stood subsequent to an Advisory Action dated January 31, 2006.

(4) STATUS OF AMENDMENTS

Claims 1, 102-119, 125-161, 175-178, and 180-186 were finally rejected in an Office Action dated October 12, 2005. Claim 135 was amended in an after-final Response dated January 5, 2006. In an Advisory Action dated January 31, 2006, the Examiner stated that the amendment was entered for appeal purposes, but that all pending claims were still rejected.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The independent claims are claims 1, 125, 135, 140, 175, and 180. Independent claim 1 is related to a data processing system (Figure 3) including a first

processing resource in the form of a web server (10) coupleable to an open communications network (2). The data processing system (Figure 3) further includes a second processing resource in the form of a back end server (48) coupleable to said first processing resource. See, e.g., page 15, line 15 to page 16, line 2. The first processing resource and said second processing resource are configured to establish a communications relationship between them through a non-network connected communications channel (50). See, e.g., Figures 3 and 11; page 5, lines 12-15; page 16, lines 2-9; and page 30, lines 11-27. The second processing resource is restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

Independent claim 125 is directed to a data processing apparatus including a first processing resource in the form of a web server (10) coupleable to an open communications network (2) and to a non-network connected communications channel (50). See Figure 3; page 15, line 15 to page 16, line 2; page 5, lines 12-15; and page 16, lines 2-9. The first processing resource is configured to transmit an instruction to a second processing resource in the form of a back end server (48) disposed in a non-open network coupled data processing apparatus responsive to receiving a communication via said communications channel (50) and for said instruction satisfying a predetermined criterion. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

Independent claim 135 is directed to a data processing apparatus, including a second processing resource in the form of a back end server (48) that is configured to

respond to an instruction received through a non-network connected communications channel (50; see page 5, lines 12-15; page 16, lines 2-9; and page 30, lines 11-27) from another processing resource in the form of a web server (10) disposed in another data processing apparatus to execute only instructions satisfying a predetermined criterion. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

Independent claim 140 is directed to a method for operating a processing system (Figure 3) including a first processing resource in the form of a web server (10) coupleable to an open communications network (2) and a second processing resource in the form of a back end server (48). The method includes establishing a communications relationship between said first and second processing resource through a non-network connected communications channel (50). See Figure 3; page 5, lines 12-15; page 16, lines 2-9; and page 30, lines 11-27. The second processing resource is therefore restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

Independent claim 175 is directed to a carrier medium (see page 13, lines 7-19; page 33, lines 20-23; and page 34, lines 14-29) comprising computer machine readable instructions, translatable for configuring a data processing apparatus or system (Figure 3) to include or establish a communications relationship through a non-network connected communication channel (50) between a first processing resource in the form of a web server (10) coupleable to an open communications network (2), and a second processing resource in the form of a back end server 48. See Figure 3; page 5, lines 12-15; page 16,

lines 2-9; and page 30, lines 11-27. The second processing resource is therefore restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

Independent claim 180 is directed to a carrier medium (see page 13, lines 7-19; page 33, lines 20-23; and page 34, lines 14-29) comprising computer or machine readable instructions for configuring a data processing apparatus or system (Figure 3) comprising a first processing resource in the form of a web server (10) coupleable to an open communications network (2) and a second processing resource in the form of a back end server (48) to establish a communications relationship between said first and second processing resources through a non-network connected communication channel (50). See Figure 3; page 5, lines 12-15; page 16, lines 2-9; and page 30, lines 11-27. The instructions are further for configuring a data processing apparatus or system (Figure 3) to transmit an instruction from said first processing resource to said processing resource for said instruction satisfying a predetermined criterion. The second processing resource is therefore restricted to implementing an instruction, communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource. See, e.g., Figures 9, 10A, and 10B; page 4, line 26 to page 5, line 10; and page 22, line 29 to page 27, line 8.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The first grounds for rejection (Issue A) presented for review by the Board is whether claims 1, 102-105, 108, 109, 111, 125, 127, 132-135, 137-144, 148, 149, 151,

158, 175-177, 180, 181, 183, and 186 are anticipated under 35 U.S.C. §102(e) by Raanan et al., U.S. Patent No. 6,311,276 (hereinafter, Raanan).

B. The second issue (Issue B) presented for review by the Board is whether claims 106, 136, and 145 are obvious under 35 U.S.C. §103(a) Raanan in view of Piccioni, U.S. Patent No. 6,842,774 (hereinafter, Piccioni).

C. The third issue (Issue C) presented for review by the Board is whether claims 107, 146, and 147 are obvious under 35 U.S.C. §103(a) over Raanan in view of Tanaka et al., U.S. Patent No. 5,539,909 (hereinafter, Tanaka).

D. The fourth issue (Issue D) presented for review by the Board is whether claims 110, 112-119, 126, 128-131, 150, 152-157, and 159 are obvious under 35 U.S.C. §103(a) over Raanan in view of Willmann, U.S. Patent No. 5,521,923 (hereinafter, Willmann).

E. The fifth issue (Issue E) presented for review by the Board is whether claims 160, 161, 184, and 185 are obvious under 35 U.S.C. §103(a) over Raanan in view of Willmann and in further view of RFC791, "Internet Protocol, DARPA Internet Program Protocol Specification" (hereinafter, RFC791).

F. The sixth issue (Issue F) presented for review by the Board is whether claims 178 and 182 are obvious under 35 U.S.C. §103(a) over Raanan in view of OSTA, "The Benefits of Writable Optical Storage" (hereinafter, OSTA).

(7) **ARGUMENT**

ISSUE A

Claims 1, 102-105, 108, 109, 111, 125, 127, 132-135, 137-144, 148, 149, 151, 158, 175-177, 180, 181, 183, and 186 stand rejected under 35 U.S.C. §102(e) by Raanan.

Claims 1, 102-105, 111, 125, 127, 133-135, 138-144, 151, 175-177, 180, and 181

With regard to the rejections of independent claim 1, independent claim 1 recites in part "said first processing resource and said second processing resource being configured to establish a communications relationship between them through a ***non-network connected communications channel***" (emphasis added). Respecting a non-network connected communications channel, Applicant states the following:

In a preferred embodiment of the invention, a dedicated communications channel 50 is disposed between web server 10 and backend server 48 for communicating messages between the web server 10 and backend server 48. Preferably, communications channel 50 is a ***non-network connected communications channel***. In the present example, the dedicated communications channel 50 is a serial line, but may be a parallel connection. The communications channel 50 may comprise a twisted pair, optical fibre or wireless link, for example, and other suitable communications channels may be provided.

Page 16, lines 2-9 (emphasis added). Applicant further states the following:

The web server 10 services requests for pages from client 11 and sends them over the network 2 back to the client. Occasionally, the web server 10 receives a request for a special function or web page, herein termed a "special page", such as an order page for ordering a product. Ordering a product requires details of the customer, including their name, delivery and billing address and, depending on the method of payment, their credit card/debit card details or bank account details, for example. ***Such information comprises sensitive data, which should not be able to be accessed by unscrupulous or unauthorised persons.***

In accordance with an embodiment of the present invention, the handling, manipulation and processing of such sensitive data is primarily carried out on the backend server 48. In an illustrative embodiment of the invention, an order page is stored on either database 46 or 52 and is sent to client computer system 11 in response to an order request, for completion and subsequent submission to the web server 10. On receiving a completed order request page, web server 10 informs the backend server 48 that a customer wishes to place an order and web server 10 then sends the order details to the backend server 48. The order details may be extracted from the order page and forwarded to the web server 10, or the order page itself may be transmitted to backend server 48. The order request details are received by backend server 48 and processed. The processing may be in real-time, for example credit/debit card verification provided by a simple *OK / \overline{OK}* result sent back to web server 10, or may be off-line, such as arranging for delivery of the requested product, checking availability in the warehouse and arranging for debit of the credit/debit card account. Once the details have been passed to the backend server 48, they can be deleted from the web server 10. ***Since the backend server 48 is not network coupled, sensitive data comprising the details are prevented from being accessed from the Internet.*** The details may be deleted from the web server 10 immediately they have been passed to backend server 48, or backend server 48 has acknowledged receipt of the details, or they may be deleted on a periodic basis, such as once a day or once every suitable time period, e.g. every hour.

Page 18, lines 4-32 (emphasis added). Thus, an aspect of the invention, in order to increase security of sensitive data, is to use a backend server and web server that establish a communications relationship between them through a ***non-network connected communications channel.***

Regarding Raanan at column 5, lines 10-29 (as cited by the Examiner), this section of Raanan does not refer to a ***non-networked connected*** communications channel. In fact, Raanan is silent as to nature of the connection at that passage. However, in the paragraphs below lines 29, explaining how the system operates, all examples in Raanan are about network connections and protocols (e.g., TCP/IP and HTTP). See, e.g., Raanan at column 5, lines 29-38, which specifically describes TCP/IP and HTTP. Thus, Raanan in fact explicitly discloses only a network connection based system.

In contrast, claim 1 of the present application relates to a situation involving the first processing resources making a direct request to the second processing resource without going via a network connection. Instead, a communications relationship is made via a **non-network connected** communications channel.

Whilst Raanan appears to disclose first and second resources (though not the first and second processing resources of claim 1), Raanan is dealing with protecting the second resource from network based attacks via a **networked** connection. A key part of Raanan is the reference to a protocol database (which holds details about the about the protocol used by the network connection). See, e.g., FIGS. 1 and 2 and column 6, lines 7-14 of Raanan. What Raanan as a whole is describing is a filter device inserted in the network connection between client and server. Raanan discusses the problems associated with analyzing network protocols. See FIG. 2 of Raanan, described in column 3, lines 56-58 of Raanan, which defines networked connections.

In contrast, the present invention as embodied in independent claim 1 describes web server and a back end server having a communications relationship between them through a non-network connected communications channel.

Accordingly, the Examiner's rejection to claim 1 is refuted.

In the Advisory Action, dated January 31, 2006, the Examiner asserted the following:

[The request for reconsideration has been considered but] does NOT place the application in condition for allowance because: In Raanan, as shown in column 3, lines 62-63, the second processing resource (server) is never directly connected to the open network, but all messages must pass through the first processing resource (gateway/filter) in order to be sent to or from the second processing resource. Figures 2 and 2a show that the only connections to the server are through the gateway (this one

gateway holds the components of the filter module, protocol DB, and protocol extraction module when viewed in light of column 3, lines 62-63). Any request sent from the client destined for the server must pass through the gateway in order to determine if any actions within the request are not allowable, only passing the complete request when those actions are deemed allowable. When the server is transmitting data to the client, the gateway intercepts the data in order to dynamically update the allowable actions. Applicant argues that the connection between the gateway and server of Raanan is not a non-network connected communications channel. The server of Raanan is isolated from the open communications network, as described above, meaning that no data held on the server is accessible to computer systems on the open communications network, this data only being accessible by the gateway.

Applicant respectfully disagrees. There is no evidence in Raanan that the server 10 and the filter module 14/protocol extraction module 18 of Raanan have a communications relationship between them through a non-network connected communications channel as recited in independent claim 1.

Raanan specifically states the following:

Referring to FIG. 2, **a computer network** such as the Internet, an intranet or any other private network, **connects clients 12 and servers 10**, of which only one of each is shown. Associated with the server 10 is a security gateway system consisting of a filter module 14, a protocol database 16, and a protocol extraction module 18. These modules and database may be stored on the server 10, on a computer separate from and connectable to the server 10, or on a number of separate but connectable computers.

Raanan at col. 3, lines 56-64 (emphasis added). Therefore, Raanan itself states that the server 10 is part of a computer network that also includes client 12. Even if the filter module 14, protocol database 16, and protocol extraction module 18 are separate from the server 10, there is no indication that the server 10 and the client 12 of Raanan have a communications relationship between them through a non-network connected communications channel as recited in independent claim 1.

It appears, for instance, that the server 10 in Raanan is allowed unfettered transmissions to any client 12. While the protocol extraction module 18 appears to extract data from server messages, there is no indication in Raanan that messages are curtailed in any way. See Raanan from col. 4, lines 46 to col. 5, line 10 and steps 30-36 of FIG. 3. When the client 12 in Raanan transmits a request directed to the server 10, the filter module 14 intercepts the request and “[i]f the request is allowable, the filter module 14 passes the request along to the server”. On the other hand, “[i]f the request does not match any of the actions in the application protocol in the protocol database 16 and is thus considered disallowable, the request is denied access to the server”. Raanan at col. 5, lines 22-27.

However, that some requests from a client 12 to a server 10 are denied access to the server 10 does not mean that the server 10 and the filter module 14/protocol extraction module 18 of Raanan have a communications relationship between them through *a non-network connected* communications channel as recited in independent claim 1. For instance, the client 12 in Raanan directs requests *to the server* (see Raanan at col. 5, line 11, step 38 of FIG. 3). See also claims 10 and 26, which state “receiving a *request* from a client *addressed to the server*” (emphasis added). Thus, the client 12 appears to use addressing to direct requests to the server. Moreover, claim 1 of Raanan states “receiving a message transmitted by the server *addressed to one or more clients*”. It is apparent that the server also uses addressing of clients in messages to the clients. In order for the client 12 to direct a request addressed to the server 10 and for the server 10 to direct a request addressed to the client 12, the server 10 and client 12 must have some type of addresses on a network. The server 10 and the client 12 in Raanan therefore are part of a network and communicate using the network.

Further, Raanan notes that “[t]he filter module 14 *intercepts* messages such as requests from the client 12” (col. 3, lines 65-66 of Raanan) (emphasis added). If messages from the client 12, which are addressed to the server 10, are intercepted, then the filter module 14 must be able to access the network having the messages. Furthermore, in Raanan, the “server 10 transmits a message directed to the client” (col. 4, line 51) and “the protocol extraction module 18 *intercepts* server messages” (col. 4, lines 46-47). If messages from the server 10, which are addressed to the client 12, are intercepted, then the protocol extraction module 18 must be able to access the network having the messages. Raanan does not appear to disclose how messages are “intercepted” by the filter module 14 or protocol extraction module 18. Nonetheless, Raanan makes it clear that the server 10, client 12, filter module 14, and protocol extraction module 18 are coupled to a network and there is no disclosure in Raanan of any non-network connection between the server 10 and filter module 14/protocol extraction module 18.

For at least these reasons, Applicant respectfully submits that Raanan does not disclose at least “said first processing resource and said second processing resource being configured to establish a communications relationship between them *through a non-network connected communications channel*” as recited in independent claim 1.

The other independent claims (claims 125, 135, 140, 175, and 180) all recite similar features to claim 2 and therefore are allowable for at least the same reasons. For instance, claim 125 recites in part “a first processing resource in the form of a web server *coupleable* to an open communications network and *to a non-network connected communications channel*, said first processing resource being configured to transmit an instruction to a second processing resource in the form of a back end server disposed in a non-open network coupled data processing apparatus responsive to receiving a

communication via said communications channel and for said instruction satisfying a predetermined criterion". Amended independent claim 135 recites in part "a second processing resource in the form of a back end server that is configured to respond to an instruction received ***through a non-network connected communications channel*** from another processing resource in the form of a web server disposed in another data processing apparatus to execute only instructions satisfying a predetermined criterion." Claim 140 recites in part "establishing a communications relationship between said first and second processing resource ***through a non-network connected communications channel*** whereby said second processing resource is restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation". Claim 175 recites in part "A carrier medium comprising computer machine readable instructions, translatable for configuring a data processing apparatus or system to include or establish a communications relationship ***through a non-network connected communication channel*** between a first processing resource in the form of a web server coupleable to an open communications network and a second processing resource in the form of a back end server". Claim 180 recites in part "A carrier medium comprising computer or machine readable instructions for configuring a data processing apparatus or system comprising a first processing resource in the form of a web server coupleable to an open communications network and a second processing resource in the form of a back end server to establish a communications relationship between said first and second processing resources ***through a non-network connected communication channel***".

Consequently, Applicant respectfully submits that independent claims 1, 125, 135, 140, 175, and 180 are patentable over Raanan. Because independent claims 1,

125, 135, 140, 175, and 180 are patentable, dependent claims 102-105, 111, 127, 133, 134, 138, 139, 141-144, 151, 176, 177, and 181 are patentable for at least the reasons given with respect to their respective independent claims:

Claims 108, 132, 137, 148

Claim 108 recites "A data processing system according to claim 1, said instruction comprising a computer program procedure name." As is recited in claim 1, the "second processing resource is restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation". Applicant cannot find in Raanan disclosure of the subject matter in claim 108.

The Examiner points to col. 5, lines 10-29 and col. 6, lines 1-6 of Raanan for purported disclosure of the subject matter in claim 108. Col. 5, lines 10-29 of Raanan recites the following:

The server message is transmitted to the client, step 36. The client then transmits a request directed to the server, step 38. The client's request may be a proper response to the server message or may be an attempt to cause the application to execute an unauthorized command. The filter module 14 intercepts the client request, reads it, and queries the protocol database, step 40. Depending upon the security and privacy desired, the query may need to identify the client, the server, the particular application and/or the particular session.

The request is compared to the application protocol database to determine whether the request is allowable, step 42. If the request is allowable, the filter module 14 passes the request along to the server, step 44. If the request does not match any of the actions in the application protocol in the protocol database 16 and is thus considered disallowable, the request is denied access to the server, step 46, and the client 12 and/or server 10 may be notified of the attempted unauthorized request.

Raanan at col. 5, lines 10-29. Col. 6, lines 1-6 of Raanan states the following:

The extraction module flither [sic] identifies any other actions available in the web document, step 76. These include, for example,

a "submit" command on an HTML form, a "search" command, or other application-level protocols. These additional actions within the web document are also extracted and stored in the protocol database, step 78.

Raanan at col. 6, lines 1-6. While the cited sections of Raanan discuss requests and commands, there is no disclosure of an instruction comprising a computer program. procedure name that is communicated from the first processing resource, as recited in claim 108.

Therefore, claim 108 is patentable over Raanan. Claims 132, 137, and 148 contain subject matter similar to the subject matter in claim 108 and are also patentable over Raanan.

Claims 109 and 149

Claim 109 recites "A data processing system according to claim 102, said second processing resource configured to provide a reply message to said first processing resource responsive to an instruction satisfying said predetermined criterion." Claim 102 depends from claim 1 and recites in part "where said first processing resource is configured to transmit said instruction to said second processing resource for said instruction satisfying a predetermined criterion."

It is noted that the Examiner equates the protocol extraction module 18 of Raanan with the "first processing resource" of the claims and the server 10 of Raanan with the "second processing resource" of the claims. The Examiner cites col. 4, lines 46-64 of Raanan as purportedly disclosing the subject matter of claim 109. This section of Raanan states the following:

In accordance with the invention, the protocol extraction module 18 intercepts server messages and extracts application protocol data for addition to the protocol database 16. The operation of the extraction

module 18 in accordance with one embodiment is described with reference to FIG. 3. The server 10 transmits a message directed to the client, step 30, the message containing information relating to the application residing and running on the server 10 or a computer connected thereto. The message may be a response to a request previously received from the client. Using a copy of the server message or the message itself, the application protocol data is extracted from the server message, step 32. As described in more detail below, this extraction process may be performed in a number of ways, including through the use of known techniques to identify a low level or communication protocol, such as TCP/IP, stripping such protocol while retaining required data such as IP source data, and searching the remainder of the message for allowed commands or other authorized user actions.

Raanan at col. 4, lines 46-64. There is no disclosure in this cited text of Raanan of a “second processing resource [i.e., the server 12 of Raanan according to the Examiner] configured to provide a reply message to said first processing resource [i.e., the protocol extraction module 18 or the filter module 14 of Raanan according to the Examiner] responsive to an instruction satisfying said predetermined criterion” as recited in claim 109.

Thus, there do not appear to be any reply messages in Raanan provided from the server 10 of Raanan to the filter module 14/protocol extraction module 18 of Raanan, where the reply message is responsive to an instruction satisfying predetermined criterion. By contraindication, in Raanan, messages are transmitted from the client 12 to the server 10 or from the server 10 to the client 12. There are potential messages from the filter module 14 to the client 12/server 10 in Raanan:

If the request does not match any of the actions in the application protocol in the protocol database 16 and is thus considered disallowable, the request is denied access to the server, step 46, and the client 12 and/or server 10 may be notified of the attempted unauthorized request.

Raanan at col. 5, lines 23-28. However, there is no disclosure in Raanan of a “second processing resource [i.e., the server 12 of Raanan according to the Examiner] configured to provide a reply message to said first processing resource [i.e., the protocol extraction

module 18 or the filter module 14 of Raanan according to the Examiner] responsive to an instruction satisfying said predetermined criterion” as recited in claim 109.

Consequently, Applicant respectfully submits that claim 109 is patentable over Raanan. As claim 149 recites subject matter similar to claim 109, claim 149 is also patentable.

Claim 158

Claim 158 recites “A method according to claim 151, further comprising said first processing resource deriving sensitive information from a communication, and including said sensitive information in said message.” Claim 151 depends from independent claim 140. Claim 151 recites in part “said first processing resource forming a message comprising said instruction and transmitting said message to said second processing resource.”

In independent claim 140, the first processing resource is in the form of a web server coupleable to an open communications network. Applicant describes “sensitive information” as the following:

Sensitive information may comprise credit card details or personal details such as address of a customer, and may generally be understood to refer to any information which either a person submitting the information to the system or the operator of the system does not wish to be accessible or available to unauthorised persons.

Page 8, lines 28-32 of Applicant’s specification.

Applicant has examined the cited portions of Raanan the Examiner asserts discloses the subject matter of claim 158, and Applicant respectfully disagrees. It is noted that the Examiner equates the “gateway/filter” of Raanan with a “first processing

resource” and the client 12 of Raanan with a “second processing resource” of Applicant’s claims. In Raanan, it does not appear that the “gateway/filter” (i.e., filter module 14 or protocol extraction module 18) operates with “sensitive information” as Applicant described above, and even if the gateway/filter or Raanan could be construed as operating with “sensitive information” (which the Applicant submits is not true), the gateway/filter does not both derive sensitive information from a communication and include the sensitive information in a message from the gateway/filter to the server 10 (or client 12) in Raanan. For instance, the filter module 14 either passes a request from a client 12 to a server 10 (step 44 of FIG. 3 of Raanan) or denies request access to the server 10 (step 46 of FIG. 3 of Raanan). The protocol extraction module 18 in Raanan does perform processing on a message received from a server 10 (see col. 4, line 46 to col. 5, line 9 of Raanan), but the message is simply passed to the client 12. Raanan at col. 5, line 10. There is no disclosure in Raanan that the protocol extraction module 18 derives sensitive information from a communication and includes the sensitive information in a message from the protocol extraction module 18 to the server 10.

For at least these reasons, claim 158 is patentable over Raanan.

Claims 183 and 186

Claim 183 recites “A data processing system according to claim 1, wherein the system is configured to operate in a command mode for transmitting commands from the second processing resource to the first processing resource.” Applicant cannot find any disclosure in Raanan of a command mode that allows commands to be transmitted from the second processing resource to the first processing resource. By contraindication, there does not appear to be any modes that allow commands to be transmitted from the server 10 to the filter module 14 or protocol extraction module 18.

Therefore, Applicant respectfully submits that claim 183 is patentable over Raanan.

ISSUE B

Claims 106, 136, and 145 stand rejected as being obvious under 35 U.S.C. §103(a) Raanan in view of Piccioni. Claim 106 recites “A data processing system according to claim 103, said second processing resource being configured to transmit an instruction fail message to said first processing resource responsive to said second processing resource determining said instruction failing to satisfy said predetermined criterion.”

The Examiner appears to equate the “first processing resource” of the claims with a “gateway/filter” (i.e., filter module 14 or protocol extraction module 18) of Raanan and the “second processing resource” with the server 10 of Raanan. However, Applicant submits that there appears to be no reason for the server 10 to send a failure message from the server 10 to the protocol extraction module 18, as the server sends messages to the client 12 and the protocol extraction module 18 intercepts those messages. There further does not appear to be any reason for the server 10 in Raanan to send a failure message from the server 10 to the filter module 14, as in Raanan the filter module 14 “intercepts” requests from the client 12 to the server 10. Raanan at col. 5, lines 11-17. If the request is allowable, the request is forwarded to the server 10. Raanan at col. 5, lines 20-23.

In Raanan, there appears to be no communication from the server 10 to the filter module 14 or protocol extraction module 18, nor is there any implication that there should be communication from the server 10 to the filter module 14 or protocol extraction module 18 in order to transmit an instruction fail message to said first processing resource

responsive to said second processing resource determining said instruction failing to satisfy said predetermined criterion as recited in claim 106.

Because there is neither teaching nor implication in Raanan that there should be communication from the server 10 to the filter module 14 or protocol extraction module 18 in order to transmit an instruction fail message to a "first processing resource", the combination of Raanan and Piccioni is improper. For at least this reason, claim 106 is patentable. Because claim 106 is patentable, claims 136 and 145, which recite similar subject matter to the subject matter in claim 106, are also patentable.

ISSUE C

Claims 107, 146, and 147 stand rejected as being obvious under 35 U.S.C. §103(a) over Raanan in view of Tanaka.

Claims 107 and 146

Dependent claim 107 recites "A data processing system according to claim 1, said second processing resource comprising a database of executable instructions defining predetermined allowable functionality of said second processing resource."

The Examiner asserts that "Raanan discloses that the second processing resource determines which instructions are to be included in the database of allowable functionality (Column 4, lines 46-64), but does not disclose that the second processing resource determines this by using a database located at the second processing resource." Page 10, Office Action dated October 12, 2005. The cited portion of Raanan states the following:

In accordance with the invention, the protocol extraction module 18 intercepts server messages and extracts application protocol data

for addition to the protocol database 16. The operation of the extraction module 18 in accordance with one embodiment is described with reference to FIG. 3. The server 10 transmits a message directed to the client, step 30, the message containing information relating to the application residing and running on the server 10 or a computer connected thereto. The message may be a response to a request previously received from the client. Using a copy of the server message or the message itself, the application protocol data is extracted from the server message, step 32. As described in more detail below, this extraction process may be performed in a number of ways, including through the use of known techniques to identify a low level or communication protocol, such as TCP/IP, stripping such protocol while retaining required data such as IP source data, and searching the remainder of the message for allowed commands or other authorized user actions.

Raanan at col. 4, lines 46-64. It appears that in the rejection of claim 107 the Examiner is equating the “second processing resource” of the claims with the “protocol extraction module 18” of Raanan, as the protocol extraction module 18 in Raanan is a device that “intercepts server messages and extracts application protocol data for addition to the protocol database 16” (see cited text of Raanan). However, in the rejection to claim 1, the Examiner equates the “second processing resource” of the claims with a *server* of Raanan and the “first processing resource” of the claims with the “*gateway/filter*” (i.e., a portion of which would include the protocol extraction module 18) of Raanan. See page 3, Office Action dated October 12, 2005. Thus, the rejection to claim 107 appears to reverse (with respect to the rejections of claim 1) which of the elements of Raanan are being equated with the terms “first processing resource” and “second processing resource” of the claims. For this reason alone, claim 107 is patentable over the cited references of Raanan and Tanaka.

Nonetheless, Raanan specifically states that “[t]o prevent clients from performing disallowable actions, a *gateway or filter mechanism* may be interposed between the client and server to identify and eliminate disallowable requests.” Raanan at col. 1, line 65 to col. 2, line 1 (emphasis added). The rest of Raanan is devoted primarily

to techniques for automatically updating the filter mechanism (e.g., filter module 14). Because Raanan provides a filter mechanism (e.g., filter module 14, which uses database 16 as defined by the protocol extraction module 18) to remove unwanted requests to the server 10, it is submitted that server 10 would then not need to provide “a database of executable instructions defining predetermined allowable functionality of said second processing resource” as recited in dependent claim 107. This assertion is supported by Raanan, as there is no teaching or implication in Raanan that the server 10 should or could contain “a database of executable instructions defining predetermined allowable functionality of said second processing resource” as recited in dependent claim 107. Therefore, there is no motivation to combine Raanan and Tanaka and claim 107 is patentable over the cited references of Raanan and Tanaka.

Because claim 107 is patentable, claim 146, which recites similar subject matter to the subject matter in claim 107, is also patentable.

Claim 147

Claim 147 recites “A method according to claim 146, further comprising said second processing resource comparing said instruction with said database of executable instructions for determining whether said instruction is an allowable instruction.” Claim 146 recites “A method according to claim 140, said second processing resource comprising a database of executable instructions defining predetermined allowable functionality of said second processing resource”, and claim 140 is an independent claim. As described above in reference to claim 107, the Examiner appears to be reversing between arguments for claim 1 and for claim 107 the equating of “first processing resource” and “second processing resource” with elements of Raanan. Further,

as also described above, there is no motivation to combine Raanan and Tanaka and therefore claim 147 is patentable over the cited references of Raanan and Tanaka.

ISSUE D

Claims 110, 112-119, 126, 128-131, 150, 152-157, and 159 stand rejected as being obvious under 35 U.S.C. §103(a) over Raanan in view of Willmann.

Claims 110, 112, 115, 130, 150, 152, and 155

Claim 110 recites “A data processing system according to claim 1, said first processing resource comprising a storage medium configured to store said instruction in a queue prior to transmission to said second processing resource.” The Examiner asserts that Raanan does not disclose a storage medium, but that Willmann does disclose a storage medium configured to store instructions in a queue.

Raanan simply states that “[t]he request is compared to the application protocol database to determine whether the request is allowable, step 42. If the request is allowable, the filter module 14 passes the request along to the server, step 44.” Raanan at col. 5, lines 20-23. There is no teaching or implication in Raanan that a queue is used to store the request prior to transmission to the server 10.

By contrast, Willmann states that “[t]he incoming data packets have been assigned to one of two priority classes and are allocated to one of two queues according to their priority class.” Willmann, col. 3, lines 51-54. The Examiner asserts that Willmann can be combined with Raanan because this combination would enable priority of messages, but there is no indication in Raanan that priority of requests exists let alone that such prioritization would be beneficial. Therefore, there is no motivation for one skilled

in the art to combine Raanan and Willmann. For at least these reasons, claim 110 is patentable over the cited art of Raanan and Willmann.

Claims 113, 116, 128, 153, 154, and 156

Claim 113 recites "A data processing system according to claim 111, wherein said message includes an instruction type and said first processing resource configured to include in said message an **action code** indicative of the instruction type." The Examiner asserts that the "priority code" in packets in Willmann corresponds to an "action code indicative of the instruction type" as in claim 113. Applicant describes an "action code" for instance as follows:

The marker field 92 is followed by an action code field 94 which indicates the type of payload in the special request message packet 90. For example, an action code "S" indicates that the special request message payload is a stored procedure on the backend server 48. A "C" indicates that the special request message payload is a credit or debit card verification request, whilst an "E" code indicates that the message payload comprises an e-mail message.

Page 20, lines 9-14. Applicant does state that "[t]he action code *may be assigned* a priority and the first processing resource can be configured to store messages in accordance with the priority assigned to the action code for that message." Page 8, lines 10-12 (emphasis added). These definitions from Applicant's specification indicate that the priority in Applicant's invention is different from the action code.

As Willmann discloses a "priority" and not an "action code" and the Examiner admits that Raanan does not disclose "an action code indicative of the instruction type", the combination of Raanan and Willmann does not disclose the subject matter of claim 113, and claim 113 is patentable over the combination of Raanan and Willmann.

Claims 116, 128, 153, 154, and 156 are also directed to an action code of a message and therefore are patentable for at least the reasons give with respect to claim 113.

Claim 114, 129

Claim 114 has subject matter similar to the subject matter in both claims 110 and 113 and therefore the arguments given above with respect to claims 110 and 113 are equally applicable to claim 114. Claim 114 is therefore patentable over the cited references of Raanan and Willmann.

Claims 117-119, 157, and 159

Claim 117 recites "A data processing system according to claim 1, said first processing resource configured to transmit said instruction or a message including said instruction responsive to receiving a communication comprising sensitive information and to discard said sensitive information from said first processing resource."

Applicant describes "sensitive information" as the following:

Sensitive information may comprise credit card details or personal details such as address of a customer, and may generally be understood to refer to any information which either a person submitting the information to the system or the operator of the system does not wish to be accessible or available to unauthorised persons.

Page 8, lines 28-32 of Applicant's specification. There is no disclosure or implication in Raanan that the filter module 14 or protocol extraction module 18 in Raanan is responsive to receiving a communication comprising sensitive information. Applicant has shown above that there is no motivation to combine Raanan with Willmann. Regardless, the

Examiner points to col. 4, lines 37-44 of Willmann as disclosing discarding sensitive information, but what Willmann says is the following:

When a data packet is read by the server from one of the logic queues QU1 and QU2, the memory locations occupied by it are entered in the list of vacant memory locations. In this example it is also possible that the memory locations of a data packet are entered in the list of vacant memory locations by the memory management device MCONTR in response to a signal from the write device WR. This data packet is thus deleted from the queue.

Willmann at col. 4, lines 37-44. It can be seen from the recited text of Willmann that the data packet is “deleted” from the queue after the data packet has been read, and there is no indication that the device in Willmann is responsive to receiving a communication comprising sensitive information to discard the sensitive information from the device.

Consequently, the Raanan and Willmann references do not disclose or imply “said first processing resource configured to transmit said instruction or a message including said instruction responsive to receiving a communication comprising sensitive information and to discard said sensitive information from said first processing resource” in claim 117.

As claims 118, 119, 157, and 159 are directed to sensitive information in messages, these claims are also patentable for at least the reasons given above with respect to claim 117.

Claim 131

Claim 131 recites “data processing apparatus according to claim 127, said first processing resource being configured to transmit said instruction or message responsive to receiving a communication comprising sensitive information and to remove at least that part of said communication comprising said sensitive information from said

first processing resource.” The arguments given above with respect to claim 117 are equally applicable with respect to claim 131.

Moreover, claim 131 recites “responsive to receiving a communication comprising sensitive information and *to remove at least that part of said communication* comprising said sensitive information from said first processing resource”. By contrast, in Willmann, the entire packet is “deleted”, and there is no disclosure or implication that the device in Willmann is responsive to receiving a communication comprising sensitive information to discard the sensitive information from the device and particularly of removing at least that part of a communication comprising the sensitive information from a processing resource.

For at least these reasons, claim 131 is patentable over the references of Raanan and Willmann.

ISSUE E

Claims 160, 161, 184, and 185 stand rejected under 35 U.S.C. §103(a) over Raanan in view of Willmann and in further view of RFC791.

Claim 160 recites “A method according to claim 158, further comprising said first processing resource discarding said sensitive information within a predetermined time period.” Claim 158 recites “A method according to claim 151, further comprising said first processing resource deriving sensitive information from a communication, and including said sensitive information in said message.”

As described above, Raanan (nor Willmann) does not disclose any derivation of sensitive information from a communication and including the sensitive information in a message. Moreover, Applicant has already shown that there is no

motivation to combine Raanan and Willmann. Nonetheless, as described above, Willmann “deletes” packets from a queue after the packets have been read, but there is no disclosure or teaching in Willmann that such packets include “sensitive information” or that the device in Willmann is responsive to receiving a communication comprising sensitive information to discard the sensitive information from the device.

Furthermore, the RFC791 section cited by the Examiner is a “time to live” parameter that is set by the sender to set the maximum time a datagram is allowed to be in the Internet system. The RFC791 section appears to be inapplicable to a processing resource that discards sensitive information (such as credit card data), derived from a communication, from the processing resource within a predetermined time period.

For at least these reasons, dependent claim 160 is patentable over the cited references of Raanan, Willmann, and RFC791. Claims 161, 184, and 185 are also patentable for at least the reasons given with respect to dependent claim 160.

ISSUE F

Claims 178 and 182 stand rejected as being obvious under 35 U.S.C. §103(a) over Raanan in view of OSTA. Claims 178 and 182 are patentable for at least the reasons given with respect to their respective independent claims, 175 and 180.

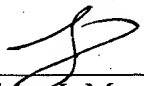
CONCLUSION

For at least the above reasons, the Applicant/Appellant contends that claims 1, 102-119, 125-161, 175-178, and 180-186 are patentable over the respective cited art. The Applicant/Appellant respectfully requests the Board reverse the final rejection in the Office Action of October 12, 2005 and the Advisory Action of January 31, 2006, and further that the Board rule that the pending claims are patentable over the cited art.

Appl. No. 09/930,612
Appeal Brief dated April 7, 2006
Corresponding to Notice of Appeal filed February 10, 2006

Respectfully submitted:

HARRINGTON & SMITH, LLP



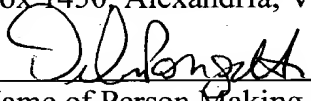
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Date

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Name of Person Making Deposit

April 7, 2006

Date

(8) CLAIMS APPENDIX

1. A data processing system, comprising:

a first processing resource in the form of a web server coupleable to an open communications network; and

a second processing resource in the form of a back end server coupleable to said first processing resource;

said first processing resource and said second processing resource being configured to establish a communications relationship between them through a non-network connected communications channel, whereby said second processing resource is restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource.

2-101. Canceled

102. A data processing system as in claim 1, where said first processing resource is configured to transmit said instruction to said second processing resource for said instruction satisfying a predetermined criterion.

103. A data processing system as in claim 1, where said first processing resource is configured to transmit said instruction to said second processing resource and where said second processing resource is configured to execute said instruction for said instruction satisfying a predetermined criterion.

104. A data processing system according to claim 103, said predetermined criterion comprising said instruction being included in a predefined set of allowable instructions for said second processing resource.

105. A data processing system according to claim 102, said predetermined criterion comprising said instruction being identified as an allowable instruction for said second processing resource.

106. A data processing system according to claim 103, said second processing resource being configured to transmit an instruction fail message to said first processing resource responsive to said second processing resource determining said instruction failing to satisfy said predetermined criterion.

107. A data processing system according to claim 1, said second processing resource comprising a database of executable instructions defining predetermined allowable functionality of said second processing resource.

108. A data processing system according to claim 1, said instruction comprising a computer program procedure name.

109. A data processing system according to claim 102, said second processing resource configured to provide a reply message to said first processing resource responsive to an instruction satisfying said predetermined criterion.

110. A data processing system according to claim 1, said first processing resource comprising a storage medium configured to store said instruction in a queue prior to transmission to said second processing resource.

111. A data processing system according to claim 1, said instruction being comprised in a message for transmission to said second processing resource.

112. A data processing system according to claim 111, said first processing resource comprising a storage medium configured to store said message in a queue prior to transmission to said second processing resource.

113. A data processing system according to claim 111, wherein said message includes an instruction type and said first processing resource configured to include in said message an action code indicative of the instruction type.

114. A data processing system according to claim 111, said first processing resource comprising a storage medium configured to store said message prior to transmission to said second processing resource, said message including an instruction type, said first processing resource being further configured to include in said message an action code indicative of the instruction type, and said first processing resource configured to store said message in accordance with a priority assigned to said action code.

115. A data processing system according to claim 111, said first processing resource comprising a storage medium configured to store said message prior to transmission to said second processing resource, said first processing resource configured to store messages in accordance with their chronological order.

116. A data processing system according to claim 114, said first processing resource being configured to select a stored message for transmission to said second processing resource in accordance with a priority determined by said action code of said message.

117. A data processing system according to claim 1, said first processing resource configured to transmit said instruction or a message including said instruction responsive

to receiving a communication comprising sensitive information and to discard said sensitive information from said first processing resource.

118. A data processing system according to claim 117, said message representing sensitive information derived from said communication.

119. A data processing system according to claim 117, wherein said sensitive information is discarded in response to transmission of said message comprising sensitive information to said second processing resource.

120-124. (Canceled)

125. A data processing apparatus, comprising:

a first processing resource in the form of a web server coupleable to an open communications network and to a non-network connected communications channel; said first processing resource being configured to transmit an instruction to a second processing resource in the form of a back end server disposed in a non-open network coupled data processing apparatus responsive to receiving a communication via said communications channel and for said instruction satisfying a predetermined criterion.

126. A data processing apparatus according to claim 125, further comprising a storage medium to store said instruction in a queue prior to transmission to said second processing resource.

127. A data processing apparatus according to claim 125, wherein said first processing resource is configured to form a message including said instruction for transmission to said second processing resource.

128. A data processing apparatus according to claim 127, wherein said message includes an instruction type and wherein said first processing resource is configured to include in said message an action code indicative of an instruction type.

129. A data processing apparatus according to claim 128, wherein said first processing resource is configured to store messages in accordance with a priority assigned to said action code.

130. A data processing apparatus according to claim 127, wherein said first processing resource is configured to store messages in accordance with their chronological order.

131. A data processing apparatus according to claim 127, said first processing resource being configured to transmit said instruction or message responsive to receiving a communication comprising sensitive information and to remove at least that part of said communication comprising said sensitive information from said first processing resource.

132. A data processing apparatus according claim 125, said instruction comprising a computer program procedure name.

133. A data processing apparatus according to claim 132, said predetermined criterion comprising said instruction or said computer program procedure being included in a predefined set of allowable instructions or computer program procedures for said second processing resource.

134. A data processing apparatus according to claim 132, said predetermined criterion comprising said instruction or said computer program procedure being identified as an allowable instruction or computer program procedure for said second processing resource.

135. A data processing apparatus, comprising:

a second processing resource in the form of a back end server that is configured to respond to an instruction received through a non-network connected communications channel from another processing resource in the form of a web server disposed in another data processing apparatus to execute only instructions satisfying a predetermined criterion.

136. A data processing apparatus according to claim 135, further comprising a database of executable instructions defining predetermined allowable functionality of said data processing apparatus.

137. A data processing apparatus according to claim 135, said instruction comprising a computer program procedure name.

138. A data processing apparatus according to claim 137, said predetermined criterion comprising said instruction or said computer program procedure being included in a predefined set of allowable instructions or computer program procedures for said second processing resource.

139. A data processing apparatus according to claim 137, said predetermined criterion comprising said instruction or computer program procedure being identified as an allowable instruction or computer program procedure for said second processing resource.

140. A method for operating a processing system including a first processing resource in the form of a web server coupleable to an open communications network and a second processing resource in the form of a back end server; the method comprising:

establishing a communications relationship between said first and second processing resource through a non-network connected communications channel whereby said second processing resource is restricted to implementing an instruction communicated

from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource.

141. A method according to claim 140, said first processing resource transmitting said instruction to said second processing resource for said instruction satisfying a predetermined criterion.

142. A method according to claim 140, said first processing resource transmitting said instruction to said second processing resource, and said second processing resource executing said instruction only if said instruction satisfies a predetermined criterion.

143. A method according to claim 142, said predetermined criterion comprising said instruction being included in a predetermined set of allowable instructions for said second processing resource.

144. A method according to claim 141, said predetermined criterion comprising said instruction being identified as an allowable instruction by said second processing resource.

145. A method according to claim 142, further comprising said second processing resource transmitting an instruction fail message to said first processing resource responsive to said second processing resource determining said instruction failing to satisfy said predetermined criterion.

146. A method according to claim 140, said second processing resource comprising a database of executable instructions defining predetermined allowable functionality of said second processing resource.

147. A method according to claim 146, further comprising said second processing resource comparing said instruction with said database of executable instructions for determining whether said instruction is an allowable instruction.

148. A method according to claim 140, said instruction comprising a computer program procedure name.

149. A method according to claim 141, further comprising said second processing resource providing a reply message to said first processing resource responsive to said second processing resource determining that an instruction satisfies said predetermined criterion.

150. A method according to claim 140, further comprising said first processing resource storing said instruction in a queue prior to transmitting said instruction to said second processing resource.

151. A method according to claim 140, said first processing resource forming a message comprising said instruction and transmitting said message to said second processing resource.

152. A method according to claim 151, further comprising said first processing resource storing said message in a queue prior to transmitting said message to said processing resource.

153. A method according to claim 151, further comprising said first processing resource forming said message to include an action code indicative of an instruction type included in said message.

154. A method according to claim 153, further comprising said first processing resource storing said message in accordance with a priority assigned to said action code.

155. A method according to claim 151, further comprising said first processing resource storing said message in accordance with a chronological order.

156. A method according to claim 153, further comprising said first processing resource transmitting a message to said second processing resource in accordance with a priority determined by said action code of said message.

157. A method according to claim 151, further comprising said first processing resource transmitting said instruction or message in response to receiving a communication comprising sensitive information and discarding said sensitive information from said first processing resource.

158. A method according to claim 151, further comprising said first processing resource deriving sensitive information from a communication, and including said sensitive information in said message.

159. A method according to claim 158, further comprising said first processing resource discarding said sensitive information in response to a transmission of said message comprising said sensitive information to said second processing resource.

160. A method according to claim 158, further comprising said first processing resource discarding said sensitive information within a predetermined time period.

161. A method according to claim 160, wherein said time period is one of the following: (1) less than 2 minutes from receipt of said communication, (2) less than 1 minute from

receipt of said communication or (3) the shortest time possible from receipt of said communication.

162-174. (Canceled)

175. A carrier medium comprising computer machine readable instructions, translatable for configuring a data processing apparatus or system to include or establish a communications relationship through a non-network connected communication channel between a first processing resource in the form of a web server coupleable to an open communications network and a second processing resource in the form of a back end server whereby said second processing resource is restricted to implementing an instruction communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource.

176. A carrier medium according to claim 175, further translatable for configuring said data processing apparatus or system to transmit said instruction from said first processing resource to said second processing resource for said instruction satisfying a predetermined criterion.

177. A carrier medium according to claim 175, further translatable for configuring said data processing apparatus or system to transmit said instruction from said first processing resource to said second processing resource, and said second processing resource executing said instruction only if said instruction satisfies a predetermined criterion.

178. A carrier medium according to claim 175, where said carrier medium comprises at least one of the following:

a solid-state memory;

a magnetic tape memory medium;

a magnetic disc; and

an optical storage medium.

179. (Cancelled)

180. A carrier medium comprising computer or machine readable instructions for configuring a data processing apparatus or system comprising a first processing resource in the form of a web server coupleable to an open communications network and a second processing resource in the form of a back end server to establish a communications relationship between said first and second processing resources through a non-network connected communication channel; and

to transmit an instruction from said first processing resource to said processing resource for said instruction satisfying a predetermined criterion, whereby said second processing resource is restricted to implementing an instruction, communicated from said first processing resource which only performs a predetermined allowable operation, thereby inhibiting compromise of said second processing resource.

181. A carrier medium as in claim 180, said second processing resource executing said instruction only if said instruction satisfies said predetermined criterion.

182. A carrier medium in accordance with claim 180, said carrier medium comprising at least one of the following:

a solid-state memory;

a magnetic tape memory medium;

a magnetic disc; and

an optical storage medium.

183. A data processing system according to claim 1, wherein the system is configured to operate in a command mode for transmitting commands from the second processing resource to the first processing resource.

184. A data processing system according to claim 117, said first processing resource being configured to discard said sensitive information within a predetermined time period.

185. A data processing system according to claim 184, wherein said time period is one of the following: (1) less than two minutes from receipt of said communication or (2) the shortest possible time from receipt of said communication.

186. A method according to claim 140, further comprising operating the processing system in a command mode for transmitting commands from the second processing resource to the first processing resource.

END OF CLAIMS

(9) EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 C.F.R. §§1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by Appellant.

(10) RELATED PROCEEDING APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. §41.37.